Ulster Med J 2006; **75 (3)** *232-234*

Abstracts

75th Meeting of the Ulster Society of Internal Medicine, Friday 19th May 2006

Erne Hospital, Enniskillen.

PROGRAMME:

2.00pm	Welcome Chairman: Dr David Higginson
2.05pm	Papers
3.20pm	Afternoon Tea
3.50pm	Papers
4.05pm	Two case presentations from Erne Hospital
4.20pm	Invited Abstract: "The patient with neurological symptoms - pathological or functional?" Dr SA Hawkins, Consultant Neurologist and Reader in Medicine, Royal Victoria Hospital and Queens University Belfast.
5.00pm	Close

PRESENTED ABSTRACTS

An Epidemiological Study of Multiple Sclerosis in the North-East Region of Northern Ireland.

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Objective: To estimate the prevalence of multiple sclerosis (MS).

Background: NI has been recognised to be an area of high risk for MS. The original study of Allison and Millar in 1951 found a prevalence of 41 per 100,000. Subsequent studies in 1951, 1961, 1986 and 1996 suggested prevalence rising serially - 57, 104 and 168.2 per 100,000.

Methods: We surveyed the North-East of NI (population 160,446, area 2,030 km^2). Sources of cases included the Northern Ireland Neurology Service records, general practitioners, hospital discharge coding, MS charities, MS specialist nurses and respite facilities. Cases complied with the Poser criteria or the McDonald criteria.

Results: From a provisional list of 469 cases, 370 (123 males, 247 females) were identified with definite MS. The prevalence was 230.6 per 100,000 (95% CIs 207.0-255.4) with a significantly higher prevalence in females (300.8 / 100,000) than males (157.0 / 100,000). Mean age on prevalence day was 50.3 years (SD 14.0). Mean age at onset was 32.6 years (SD 10.5). Mean delay between onset and diagnosis was 4.6 years.

Conclusions: NI continues to have a rising prevalence of MS. This may in part be due to improved case ascertainment, improved diagnostic techniques and improved awareness of MS.

Cardiovascular Risk Assessment in Primary Osteoporosis

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Background: There is increased awareness of the need for cardiovascular (CVS) risk monitoring in the Northern Ireland population in general, and amongst rheumatoid arthritis and SLE patients in particular, who have a higher incidence of cardiovascular disease. No clear guidelines exist for cardiovascular risk monitoring in osteoporosis, and the prevalence and associations of known CVS risk factors are largely unquantified.

Aim: To estimate current levels of CVS risk monitoring in primary osteoporosis patients, and then perform a CVS risk assessment, together with measures of bone health, bone mineral density (BMD) and fracture risk.

Methods: History and examination of 80 patients at a dedicated multidisciplinary osteoporosis clinic at Musgrave Park Hospital, together with BMD measurement and blood sampling for lipids, glucose and urate measurement.

Results: 80 primary osteoporosis patients (10 male, 70 female, median age 67.0 years (95%CI 65.0-70.0), median onset 63.0 years, (95%CI 60.0-65.0)) were assessed. 57 (71%) recalled a blood pressure check in the previous year, but just 35 (43.8%) had received a lipid check, and only 26 (32.5%) a test for diabetes. 8 patients had systolic blood pressure (BP) >160mmHg, and 7 diastolic BP >90mmHg (definitely hypertensive). 31 (38.8%) had systolic BP >140mmHg and 41 (51.1%) had diastolic BP>80mmHg) (borderline hypertension). 14 (17.5%) of patients had already been diagnosed with angina, myocardial infarction or stroke.

There was a striking and previously unreported relationship between diastolic BP and having suffered a low trauma fracture. Patients without fracture (n=38) had a median diastolic BP of 70.0 (95%CI 65.9-76.1) compared with 85.0 (95%CI 80.0-88.0) in patients who had sustained at least one fracture (n=42) (p<0.001). There was no relationship with diastolic BP and steroid or bisphosphonate use.

There was also a previously unreported correlation between lower HDL levels and BMD at the hip (r=-0.28, p=0.02). Hip BMD in patients with HDL<1.5 v HDL>1.5 0.765 (95%CI 0.731-0.823) v 0.726 (95%CI 0.624-0.785), p=0.05. There was no relation with statin use. Overall, 38 (47.5%) patients had cholesterol levels >5.2 mmol/l, and just 14 patients were taking lipid lowering therapy.

Conclusion: There is a substantial unmet need for cardiovascular risk assessment in primary osteoporosis, in which cardiovascular disease is common. There are potentially interesting links between hypertension and lipid abnormalities and some aspects of bone health, which merit further investigation. All these patients will have regular CVS monitoring at our clinic.

Effect of a new chest pain clinic on cardiology referral patterns.

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A new chest pain clinic (CPC) saw 106 patients in the first two months (February and March 2006). A final report with diagnosis, recommended treatment or further investigation was faxed within 24 hours.

Most referrals were from GPs (66%), with 14% from the Emergency Department (ED) or Clinical Decision Unit. Cardiologists referred 20% from routine referral letters to cardiology out-patients (OP).

The diagnosis was non-cardiac chest pain in 65%, stable/possible angina 30%, unstable angina 4%. No patients had myocardial infarction.

The final outcomes were referral back to GP in 62%, cardiology OP referral 31%, medical OP referral 3% and 4% patients were admitted.

Further cardiac investigations, mostly coronary angiography, were planned in 30% patients. If the CPC had not been available, the referring doctor would have sent 32% patients to cardiology OP, 27% to another chest pain clinic, 23% for open access investigation, 13% to the ED and 4% for admission.

We concluded that the CPC had resulted in a small reduction in GP referrals to the ED. The reduction in cardiology OP referrals by the referring doctor is exactly offset by the generation of new cardiology OP referrals from the CPC. However, 95% GP referrals (84% all referrals) to the CPC were seen within 1 week. Additional work was captured that would have been referred to the CPC of another hospital.

Isolated T3 toxicosis complicating metastatic thyroid follicular thyroid cancer: a trap for the unwary during long-term thyroxine suppression therapy.

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We present a case of a 63 year old man who developed T3-toxicosis 13 years following thyroidectomy and ablative radioiodine therapy for follicular thyroid cancer (FTC). Although asymptomatic (free T4 18.4 pmol/l, TSH <0.01 mU/l) while taking levothyroxine (T4) 200 µg/d during long-term suppressive thyroxine therapy he later presented with uncontrolled atrial fibrillation and congestive cardiac failure. Thyrotoxicosis due to excessive levothyroxine intake was considered however free T4 levels were similar to previous measurements (14.7 pmol/l). The possibility of isolated T3-toxicosis was suspected and confirmed (free T3 levels varying between 10.5-23.8 nmol/l). Iodine-avid pulmonary and hepatic metastases were visualized on I^{123} scanning, in the absence of neck uptake, and thyroxine therapy was withdrawn prior to further treatment of 3700 MBq I^{131}.

Comment: Thyrotoxicosis caused by thyroid cancer occurs rarely and is usually due to follicular neoplasia, often in association with pulmonary and/or bony metastatic disease. As in this case, the biochemical profile is frequently that of isolated T3-toxicosis. While treatment and survival of cases with thyrotoxicosis appear similar to euthyroid cases with FTC, development of hyperthyroidism implies a large tumour bulk due to reduced iodine concentrating efficiency. We await clinical and biochemical responses to I^{131} in this case however his prognosis remains guarded.

ST elevation in lead aVR during exercise testing should not be ignored.

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The significance of ST elevation (STE) in lead aVR during exercise is controversial. We aimed to assess the diagnostic value of STE in aVR during exercise prior to Tc^{99}-sestamibi scanning and its predictive value in identifying ischemic territory and angiographic findings.

Consecutive patients for Tc^{99}-sestamibi perfusion imaging between April and Aug 2004 were enrolled. Their peak exercise ECGs were coded by 2 blinded investigators. STE ≥0.05mV in lead aVR was significant. Gated perfusion imaging and angiographic findings were assessed.

STE in lead aVR occurred in 25% (138/557) of patients. More patients with STE in aVR had reversible defects on imaging compared with those that had no STE in aVR (41% 56/138 vs 27% 114/419, p = 0.003). Defects indicating a left anterior descending artery (LAD) culprit lesion were more common in the STE aVR group (20% 27/138 vs 9% 39/419,

